

IN THE SPECIFICATION

Please amend the Title on page 1 as follows:

HEAD ARM ASSEMBLY AND DISK DRIVE DEVICE WITH THE HEAD ARM
ASSEMBLY HAVING ENHANCED IMPACT RESISTANCE

Please amend the paragraph beginning at line 1 of page 3 as follows:

According to the present invention, an HAA includes a head slider having at least one head element, an arm member for supporting the head slider at one end section, an actuator, mounted to the other end section of the arm member, for rotationally moving the arm member in a direction substantially parallel with a recording medium surface around [[a]] an axis for horizontal rotation [[axis]] of the arm member, and a load generation unit for generating a load for energizing the head slider in a direction to the recording medium surface by rotationally moving the arm member in a direction substantially orthogonal to the recording medium surface around [[a]] an axis for vertical rotation [[axis]]. The position of the center of gravity of the HAA is located at a different position from the axis for vertical rotation [[axis]] on a center axis of the arm member.

Please amend the paragraph beginning at line 17 of page 3 as follows:

The head slider and the actuator such as a VCM are mounted to respective end sections of an arm member, and the axis for horizontal rotation [[axis]] is located between them. The arm member is constructed to be able to rotationally move in the direction substantially orthogonal to the recording medium surface around the axis for vertical rotation [[axis]], and the head slider is biased in the direction of the recording medium surface by the load generation unit. In the HAA with such a new structure, the position of the center of gravity is set to be displaced to a different position from the axis for vertical rotation [[axis]]

on the center axis of the arm member. By appropriately selecting the displacement of this position of the center of gravity, it becomes possible to keep the load applied to the head slider substantially constant irrespective of the positive and negative direction, i.e., sense, and the value of the impact acceleration applied from outside, and it becomes possible to enhance impact resistance dramatically. By adjusting the displacing amount and the positive and negative direction, i.e., sense, of the position of the center of gravity, the load property applied to the head slider with respect to the impact acceleration applied from outside can be varied. Accordingly, it becomes possible to compensate positive pressure or negative pressure occurring to an air bearing surface (ABS) of the head slider during rotation of the recording medium with this displacing amount. As a result, degree of freedom of the ABS design of the head slider is improved to a large extent, and it also becomes possible to obtain a desired flying property for the head slider with the ABS area being very small.

Please amend the paragraph beginning at the penultimate line 21 of page 6 as follows:

It is still further preferred that the axis for horizontal rotation [[axis]] is provided at a horizontal rotation bearing part located at a midpoint of the arm member, and the axis for vertical rotation [[axis]] includes a protuberance provided in the vicinity of the horizontal rotation bearing part.

Please amend the paragraph beginning at line 21 of page 11 as follows:

The leaf spring 14 is formed of a metal leaf spring material in substantially a circular shape or substantially a semicircular shape, and its thickness and quality are suitably selected so as to be able to give a desired load to the magnetic head slider 13. In this embodiment, the leaf spring 14 is constructed by a stainless steel plate (for example, SUS304TA) about 40 μm thick. The leaf spring 14 is placed to be coaxial with the fixing member 15, a mounting hole

10a of the support arm 10 and the bearing housing 16, both end sections of the semicircular shape are fixed to the support arm 10, and a central portion is fixed to the bearing housing 16 via the fixing member 15. Accordingly, the support arm 10 is supported by the bearing housing 16 via the leaf spring 14. A rotation axis of the bearing housing 16 is ~~[[a]]~~ an axis for horizontal rotation ~~[[axis]]~~ 25a of the support arm 10, accordingly, the HAA, and the bearing housing 16 and the support arm 10 rotationally move together in the horizontal direction with this rotation axis 25a as the center.

Please amend the paragraph beginning at line 19 of page 12 as follows:

A pair of protuberances, namely, pivots 22 as shown in Fig. 4 are provided on an under surface (surface on the side of the magnetic disk) of a flange portion 16a of the bearing housing 16. A pair of these pivots 22 are provided at such locations as they are axially symmetric with respect to a center axis that is a center in a longitudinal direction (the direction to connect the mounting part of the magnetic head slider and the coil of the VCM) of the support arm 10, and a straight line connecting both of them passes through an axial center of the bearing housing 16, and they are constructed so that tip ends of these pivots 22 abut to the support arm 10. Consequently, the support arm 10 is supported by the leaf spring 14 in the state in which it abuts to the tip ends of the pivots 22 and is axially supported, and the support arm 10 is biased in a direction orthogonal to the surface of the magnetic disk 17. In this case, the straight line connecting the tip ends of a pair of the pivots 22 becomes ~~[[a]]~~ an axis for vertical rotation ~~[[axis]]~~ 25b of the support arm 10, accordingly, the HAA.

Please amend the paragraph beginning at line 1 of page 14 as follows:

The important point in this embodiment is that a position of a center of gravity of the HAA is displaced to a predetermined position 26 nearer to the VCM coil 19 than the axis for

vertical rotation [[axis]] 25b that is the pivots 22, on the axis line of the arm member 10. The position of the center of gravity is deviated on the axis line of the arm member 10 without conforming to the axis for vertical rotation [[axis]] 25b that is the fulcrum, whereby it is made possible to keep the load applied to the magnetic head slider 13 substantially constant irrespective of a positive and negative direction and a value of the impact acceleration applied from outside, and it becomes possible to enhance impact resistance dramatically.

Please amend the Abstract on page 31 as follows:

~~An HAA~~ A head arm assembly (HAA) includes a head slider having at least one head element, an arm member for supporting the head slider at one end section, an actuator, mounted to the other end section of the arm member, for rotationally moving the arm member in a direction substantially parallel with a recording medium surface around [[a]] an axis for horizontal rotation [[axis]] of the arm member, and a load generation unit for generating a load for energizing the head slider in a direction to the recording medium surface by rotationally moving the arm member in a direction substantially orthogonal to the recording medium surface around [[a]] an axis for vertical rotation [[axis]]. The position of the center of gravity of the HAA is located at a different position from the axis for vertical rotation [[axis]] on a center axis of the arm member.